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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHARLES G. HWANG and ROGER GROSKOPF

Appeal 2010-003475
Application 10/691,385
Technology Center 3700

Before LINDA E. HORNER, KEN B. BARRETT, and
JAMES P. CALVE, *Administrative Patent Judges*.

CALVE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Charles G. Hwang and Roger Groskopf (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38. Claims 3-7, 10, 13, 17-21, 25-27, 29, and 30 have been withdrawn. Claims 35 and 36 have been cancelled. We have jurisdiction under 35 U.S.C. § 6. We AFFIRM.

THE INVENTION

The claimed invention is directed to a tip cap for a syringe. Claim 1, which is set forth below, is representative of the claimed invention:

1. A tip cap for a syringe for a medicament, the syringe having a tip, said tip cap comprising a base portion having an upper surface and a lower surface, a body having a top wall extending from said upper surface and self-maintained in having a substantially non-circular cross-section in an unstressed condition when viewed at an angle substantially perpendicular to said upper surface, and a shaft extending from said lower surface, said shaft being shaped internally to releasably receive the tip of the syringe, wherein said tip cap defines a continuous and uninterrupted sealing surface which continuously seals the tip of the syringe and contains the medicament within the syringe when said tip is releasably received in said shaft of said tip cap and until said tip cap is removed from said syringe, the medicament within the syringe being accessible through the tip of the syringe with removal of said tip cap.

THE REJECTIONS

The Examiner relies on the following as evidence of unpatentability:

Adams	US 2,585,527	Feb. 12, 1952
Rowekamp	US 4,535,906	Aug. 20, 1985
Wallace	US D457,954 S	May 28, 2002

The following rejections are before us for review:

1. The Examiner has rejected claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38 under 35 U.S.C. § 102(b) as being anticipated by Adams.
2. The Examiner also has rejected claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38 under 35 U.S.C. § 103(a) as unpatentable over Wallace in view of Rowekamp.

CONTENTIONS AND ISSUES

The Examiner determined Adams disclosed a tip cap and syringe, as recited in independent claims 1 and 15. Ans. 3. The Examiner interpreted “syringe” to be “a device used to inject fluids into or withdraw them from something” and found that Adams disclosed such a syringe. Ans. 4. The Examiner also found that the tip cap in Adams provided a continuous and uninterrupted sealing surface. Ans. 4-5. Regarding the second ground of rejection, the Examiner found Wallace disclosed the claimed tip cap, except for a non-circular cross-section. Ans. 3. The Examiner found Rowekamp disclosed a cap with a non-circular cross-section and determined it would have been obvious to modify the tip cap of Wallace with the elliptically-shaped cap of Rowekamp to make the tip cap easier to grip. Ans. 3-4, 5.

Appellants argue claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38 as a group for the first ground of rejection and present additional arguments for dependent claims 33 and 34. App. Br. 5-11. We select claim 1 as representative of the first group and address Appellants’ separate arguments as to claims 33 and 34. Claims 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31, 32, 37, and 38 stand or fall with claim 1 for the first ground of rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants argue that Adams discloses a closure for a container, not a tip cap for a syringe. App. Br. 7-9, 11. Appellants also argue that the closure in Adams does not define “a continuous and uninterrupted sealing surface.” App. Br. 9-11. As to the second ground of rejection, Appellants argue that there is no basis to modify the tip cap of Wallace with Rowekamp and any such modification would not yield a tip cap with a substantially non-circular cross-section, as recited in claims 1 and 15. App. Br. 14-16; Reply Br. 3.

ISSUES

The issues presented by this appeal are:

Does Adams disclose a tip cap that provides a continuous and uninterrupted sealing surface for a syringe, as recited in claims 1 and 15, and for a medical syringe, as recited in dependent claims 33 and 34?

Would a person skilled in the art have been motivated to modify the tip cap of Wallace with the bottle overcap of Rowekamp to provide a tip cap with a non-circular cross-section, as recited in claims 1 and 15?

ANALYSIS

Anticipation of claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38

Claim 1 recites a tip cap for a syringe for a medicament. The tip cap “defines a continuous and uninterrupted sealing surface which continuously seals the tip of the syringe and contains the medicament within the syringe when said tip is releasably received in said shaft of said tip cap and until said tip cap is removed from said syringe, the medicament within the syringe being accessible through the tip of the syringe with removal of said tip cap.” Independent claim 15 recites a syringe assembly comprising a syringe and a tip cap with this same feature.

We agree with the Examiner's interpretation of "syringe" to be "a device used to inject fluids into or withdraw them from something." *See* Ans. 4. During examination, claim terms are given their broadest reasonable meaning in their ordinary usage as they would be understood by persons skilled in the art, taking into account whatever enlightenment by way of definitions or otherwise may be afforded by the written description in the specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

The Background of the Invention discusses syringes having a barrel and elongate tip. A plunger may be inserted into the open proximal end of the barrel. Spec. [0003]. The syringes may include a needle assembly with a needle cannula. Spec. [0007]. When a needle is not staked to the syringe body, a tip cap is placed over the distal end of the syringe barrel to prevent leakage and contamination of medication in the barrel. Spec. [0008, 0030]. The drawings disclose a tip cap mounted to a luer tip of a syringe 220. *See* Fig. 2; Spec. [0030]. As such, while Appellant's Specification describes syringes that may have a plunger or a needle assembly, Appellant's Specification does not show the claimed tip cap placed over a syringe with a plunger and needle assembly and does not provide a definition of syringe that limits the syringe to one having a plunger and needle assembly.

In light of our claim interpretation of "syringe", we agree with the Examiner's finding that Adams discloses a tip cap for a syringe. Ans. 3, 4. In other words, because the recited syringe does not include a needle assembly and also may not include a plunger, it is not capable of injecting or withdrawing fluids to any greater extent than the container of Adams.

We also agree with the Examiner that Adams discloses a cap that defines a continuous and uninterrupted sealing surface. Adams discloses the

cap seals tightly when mounted on the container, as shown in figure 6, to prevent the contents of the container from passing through an incision in the cap even when a substantial amount of force is exerted on the tube. Adams, col. 3, ll. 17-26. The tightness of the seal also prevents the ingress of foreign matter through the cap. Adams, col. 3, ll. 26-28. We further agree with the Examiner that claim 1 does not recite that the medicament is *only* accessible through the tip of the syringe with removal of the tip cap (Ans. 4-5), and thus Appellants' argument that Adams does not disclose this feature (App. Br. 10) is unpersuasive.

Claims 33 and 34

Claims 33 and 34 recite "wherein the syringe is a medical syringe." Appellants argue that "the term 'syringe' should be construed as covering medical syringes for injection" and that the use of "medical syringe" in claims 33 and 34 "further highlights this interpretation." App. Br. 11. The Specification does not provide a definition of "medical syringe." As discussed *supra*, the Specification discloses that a syringe may include a plunger and a needle assembly but it shows a tip cap is attached to a syringe without a needle assembly or plunger. We see no reason in light of Appellants' Specification to define "medical syringe" with any different scope than the "syringe" of the independent claims or to limit the term to a syringe "for injection" as argued by Appellants. Giving these claims their broadest reasonable interpretation consistent with the Specification, we find Adams discloses a medical syringe.

Obviousness of claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38

We disagree with the Examiner's determination that Wallace can be modified by Rowekamp to yield the claimed invention. Rowekamp

discloses a container that is closed by rotating a cap through a quarter-turn. Rowekamp, col. 1, ll. 5-7. When the cap is rotated a quarter-turn to seal the container, the major axes of the ovate container body and the ovate cap skirt are aligned. Rowekamp, col. 1, ll. 14-22; fig. 6. The ovate-shaped cap skirt aligns with the ovate-shaped container to indicate when the cap has been turned a quarter-turn to seal the container. We agree with Appellants that there is no reason to combine this feature with Wallace's circular tip cap that is rotated a number of turns to seal a syringe tip. *See* Reply Br. 3-4.

CONCLUSION

Adams discloses a tip cap that provides a continuous and uninterrupted sealing surface for a syringe, as recited in claims 1 and 15, and a medical syringe, as recited in dependent claims 33 and 34.

A person skilled in the art would not have been motivated to modify the tip cap of Wallace with the bottle overcap of Rowekamp to provide a tip cap with a non-circular cross-section, as recited in claims 1 and 15.

DECISION

The Examiner's decision to reject claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38 under 35 U.S.C. § 102(b) as anticipated by Adams is **AFFIRMED**.

The Examiner's decision to reject claims 1, 2, 8, 9, 11, 12, 14-16, 22-24, 28, 31-34, 37, and 38 under 35 U.S.C. § 103(a) as unpatentable over Wallace in view of Rowekamp is **REVERSED**.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

Appeal 2010-003475
Application 10/691,385

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